# Household Expenditure Survey data - Report on user views

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Feedback

This paper summarises the views, opinions, and conclusions expressed by the users of Household Expenditure Survey data who were interviewed in this study. The ABS has not taken any decisions yet about the future of household expenditure data and will undertake a second round of interviews with users before the end of October.

## Executive summary

The household expenditure survey (HES) is the only comprehensive data collection of household spending in Australia linked to household type (single person, two parents and two children etc). The data is collected every six years, but a two-year delay to the 2020-21 collection means the ABS is reimagining how to deliver the household expenditure data.

To support this work, the ABS set up a temporary team to investigate the future of the HES. The project is applying human-centered design techniques to interview HES data users and understand their needs. Conducting 62 interviews with 93 individuals over a three-week period, the team identified use cases and the context of HES data, from the perspective of those outside the ABS. This paper summarises the views, opinions, and conclusions expressed by the users of Household Expenditure Survey data who were interviewed in this study. The ABS has not taken any decisions yet about the future of household expenditure data and will undertake a second round of interviews with users before the end of October.

There are six main uses of household expenditure data, outlined below:

| | Use of HES Data | Example provided in interview |
|---|---|---|
| 1 | Macro policy analysis | Overall consumption trend in the economy |
| 2 | Micro analysis | Whether recently arrived migrants have different expenditure patterns than long term residents |
| 3 | Single product or service analysis | A subsidy or GST change to a product and its impact on specific types of households |
| 4 | Modelling | Using HES data as an input to economic models or micro simulations |
| 5 | Tracking economic activity | Affordability of living on a state pension |
| 6 | ABS statistical production | As an input to the National Accounts and re-weighting the Consumer Price Index and Selected Living Cost Indexes |

Throughout the interviews we heard that the link from expenditure to household type and other data is the key for the analysis and needed to be retained as a feature of the data. There were no users who simply used expenditure data in isolation.

We also heard that the ABS is trusted to deliver a quality product, and that users are ultimately agnostic about the source – administrative, big data or surveys – used to produce expenditure data. Users expect the ABS to explain differences across sources and methods and manage changes over time.

Users would like the quality of the data to remain high, however different users prioritised different aspects of quality. There is demand for more frequent data collection. Aspects of accuracy and sample size came up, particularly where advanced users conduct detailed and topical analysis.

Users from academia, government, non-government organizations and research institutes all want a rich and detailed set of variables at a common unit of analysis (currently households), available in both aggregate and as microdata.

## Introduction - There is currently no alternative to the HES

None of the users interviewed considered other surveys to be viable alternatives to HES data. The Household, Income and Labour Dynamics in Australia (HILDA) survey was the most cited alternative, as many users put it: "Usually I will revert to HILDA if I can't use HES". However HILDA "couldn't do what the ABS does" because the HES diary (requiring respondents write down all spending over a week) is too burdensome. While the HILDA data is more accessible than the HES data, the expenditure data is not as detailed

> HES is pretty central to our interests; looking after 6 million households with low incomes, so what they spend their money on is important - Government Agency

HES is well understood, both in terms of its content and methods. As stated by one academic "surveys have limitations, but these limitations are understood."

Because HES data is the only comprehensive expenditure dataset, users are nervous about any change to HES. The HES output is "especially important, as other bespoke surveys have disappeared" (Peak body). Government agencies noted that without HES data they would be dependent on "past experience and theoretical relationships between economic concepts" in their forecasting and analysis. Several academics pointed out that for research they will "go to where the data is", shifting to international data sources, if HES were not available or considered unreliable.

There are more than 250 users of the current HES data, which include academics, nongovernment organizations (NGOs), research institutes and government departments, both State and Commonwealth. The table below provides a summary of how the data is used, based on the completed interviews.

Feedback

| | Use of HES Data | Government | NGOs | Academia | Research Institutes |
|---|---|---|---|---|---|
| 1 | Macro policy analysis | ✔ | ✔ | ✔ | ✔ |
| 2 | Micro analysis | ✔ | ✔ | ✔ | ✔ |
| 3 | Single product or service analysis | ✔ | | | |
| 4 | Modelling exercises | ✔ | | ✔ | |
| 5 | Tracking economic activity | ✔ | | | |
| 6 | Official statistics production | ✔ | | | |

## HES data is needed more than every six years

The frequency is the primary criticism of HES. Nearly all users state the six-year frequency limits the relevance, value and "credibility" of HES data, with one policy maker frustrated that "when accounting for timing and release time, we can be looking at 10-year old data".

Many interviewees took this drop in relevance as a "given" but some users volunteered their reasoning for the reduced relevance. One driver was the perception of changes in the structure or nature of expenditure such as moves toward a cashless economy and shifts in expenditure levels (Academics, Government agencies)

> "[We are] interested in modelling effects as they happen" - Government agency

> "During the COVID period the distribution of welfare as well as expenditure patterns have changed... HES patterns are not relevant anymore" - Government agency

A second driver for increased frequency is measuring short term impacts such as natural disasters, recessions, the COVID pandemic; and related policy interventions (Academics, Government agencies)

When asked how often would be frequent enough, the answer is simple: "the more frequent better". When pressed for specific answers, nearly all users desired increased frequency, but not at the expense of quality. For example, one government user had the view that "The highest desired frequency is monthly. It would significantly improve modelling... [but we] still need household/demographic characteristics and geography". Some suggested administrative data would be "more timely, [and] help you get it NOW... But we still need household breakdown." (Academic)

Some Government users noted that greater frequency would change their outputs and products, not only delivering increased accuracy but also new analysis.

Comparing the Australian HES with international counterparts, initial research from the ABS suggests that the 6-yearly cycle is among the least frequent, although Eurostat's five-year cycle will become a minimum standard in the EU (see Figure 1).

## Figure 1: Comparing frequency of household expenditure surveys

**Survey Frequency**
- Continuous
- Annual
- 2 Years
- 3 Years
- 4 Years
- 5 Years
- 6 Years
- 10 Years

## Updating HES data between each survey

Because of these concerns about relevance, several users age or update the data to undertake analysis on the current period. These users typically author their own products and report biannually, or more frequently.

Updating/uprating methods provide a buffer to the current timeliness demands for these users, and can be applied to manage the recent delay of HES to 2023/24. However, users are uncertain about how these may need to change to reflect the larger gap.

## Make sure data is detailed, and linked to a common unit

All users of HES data analyse expenditure with other variables. No-one looked at expenditure in isolation. Users therefore require expenditure data and coincident measures, including household characteristics, for a given unit (i.e. household, currently)

> "Loss of the link between income and expenditure would be disastrous" - Peak Body

Users generally desire greater detail and disaggregation than currently provided. Multiple users raised, some with frustration, the difference between the detail collected by the ABS compared to the detail being published. Some academics made the point that "If you collect detailed demographic info but only publish the aggregate, why bother?". Several stakeholders across multiple user types expressed they "would love to have individual level as well as household level data".

Some users discussed improvements to the expenditure classification scheme (e.g. disaggregating electricity and fuel), and discussed the processes needed to align HEC coding with other classifications in use (e.g. CPI/COICOP).

> The real focus of social and economic analysis is people, their behaviour and circumstances… You'll need household data to supplement admin sources - Academic

While users did not raise the relationship between output granularity and sample size (or the implications on errors or confidentiality), sample sufficiency was implied in the conversation.

Several government and academic users explored the usefulness of a longitudinal/panel design to deliver frequency and detail, while adding greater explanatory power than the current crosssectional design.

## Using big data is hard work

Overall, substituting survey data for admin data was not inherently a concern for users so long as quality standards were maintained, and the ABS could explain the data differences and manage changes over time. Some noted the potential improvements to accuracy by replacing or combining items with admin data, and one Government agency "generally prefer admin data". Some suggested the ABS should be looking to "utilise the power of a survey in the big data world", such as using bank data to show inflows and outflows, linked to the survey data.

> We don't really use other info. Other transaction data is out there, but requires a lot of work and would need to turn people into data engineers - Government agency

Most users had not directly used admin data in their analysis. For those who had not used big data there were mixed views of its potential. Some suggested combining the survey with admin data to improve quality or provide data for small area/regional/low-population estimates. Multiple academics stated that there are "no other sources of admin data" because they lack the same data richness as the survey.

> We do research at quite a high level and then dig in deeply [to] find interesting patterns to understand the main drivers - Government agency

This was particularly clear for subjective/qualitative items, such as perceptions of financial stress, intentions, or questions about why respondents' behaviour is as it is. Many users were concerned about the representativeness of Administrative/Big data for their purposes.

Those who had used administrative data held similar views. These users explained the difficulty of integrating/linking data sources to produce an adequate and representative dataset to meet their needs. These include lack of linkage details, different levels of representation (e.g. individual vs household; transaction vs individual), varying degrees of timeliness, and conceptual or definitional differences across sources and time.

Users experienced with admin data were therefore sceptical (sometimes outright negative) about the ability to deliver the required richness. The most optimistic users evaluated the landscape as "a lot of work" (Academic, Government agency, Peak Bodies) which prevents some users from engaging with the data.

## Users are keen for improvements, but hesitant about change

As stated by one researcher: "I never have to clean ABS data, it's always perfect *kiss*". While not all users agree with this notion of perfection, HES data is certainly seen as a high quality, unbiased source of expenditure data in Australia.

> If [ABS] can explain differences and reliability of admin data, then we would be open to using it - Peak Body

While users are open to improvements to the HES, and some would welcome a more frequent and bigger HES, there were clear reservations about frequency coming at the cost of quality. There were differences, depending on who we spoke to: Macro policy analysts wanted more frequent and less detailed information, but very quickly needed to be able to get into the detail of why things had changed. A number of modellers were relaxed about a HES every 5 years, or at a 2-4 year interval, as they would not be updating their models more frequently. The highest demand for a more frequent HES was from government departments, who require annual outputs and account for infrequent HES output in a variety of methods.

Many users, of all user types, reported the HES sample size is too small for specialised or small populations of interest, and volunteered populations of interest that might be targeted in future surveys, such as immigrants, high net worth individuals, and benefit recipients.

## Appendix A - List of interviewees

| | |
|---|---|
| Australian Council of Social Services | Kellie Caught, Penny Dorsch, Dr Peter Davidson |
| Association of Superannuation Funds of Australia | Ross Clare |
| Australian Communications Consumer Action Network | Una Lawrence, Meredith Lea, Megan Ward, Tanya Karliychuk, Rebekah Sarkoezy |
| Australian Energy Regulator | Carly Weate, Gerard Kennedy, Tessa Hermans, Daniel Carson |
| Australian Institute of Health and Welfare | Nikki Schroder, Tuan Phan, Adrian Webster |
| Australian National University | Ben Philips, Rob Bray, Prof Peter Whiteford |
| BDO Econsearch | Anders Magnuson |
| Commonwealth Scientific and Industrial Research Organisation (CSIRO) | Lavinia Poruschi |
| Curtin University | Silvia Salazar, Therese Jefferson |
| Deakin University | Lukar Thornton |
| Department of Infrastructure | Corinne Ness |
| Department of Social Services | Jenny Humphrys, Cailtin Delaney, Andrea Wallace Green, Richard Hurley, Amanda Kennedy, Mabruk Dajan, Samuel McNamara, Eric Morris (ABS Outposted officer) |
| Energy Consumer Australia | Elisabeth Ross, Jacqueline Crawshaw, Lynne Gallagher |
| Ernst & Young | Johnathan McMenamin, Patrick Huynh |
| Fair Work Commission | David Rozenbes, Grant Ellis, Ben Brocchi |
| GeoTRIBES | Robert Dommett |
| Grattan Institute | William Mackey |
| Griffith University | Shyama Ratnasiri |
| Kynetec | Melinda Haley |
| Macquarie University | Rohan Best, Julian de Meyrick |
| Market Data Systems | Otto Helwig |
| New South Wales Treasury | Joshua Uhrig |
| Parliamentary Library, Department of Parliamentary Services | Geoff Gilfillan |
| Productivity Commission | Matthew Forbes, Patrick Jomini, Anthony Shomos |
| Queensland University of Technology | Marion McCutcheon |
| Reserve Bank of Australia | Tom Rosewall, Tomas Cokis, Giancarlo La Cava, Rosa Bishop |
| South Australian Council of Social Service (SACOSS) | Dr Greg Ogle |
| South Australia Department of Premier and Cabinet | Matthew Winefield |
| Treasury (Commonwealth) | Mark Bott,  David Gardiner, Belinda Cheong, Angie McCosker, Esther Han, Christopher Efklides, Kim Grima, Simon Nash, Ruby Grounds, Daniel Ledda, Matthew Wasley, Nathan Deutscher, Maxine Montaigne, Natasha Bradshaw, Jonathan Hambur, Andy McClure,  Kate Fermandes, Myles Burleigh (ABS Outposted Officer) |
| University of Canberra | Robert Tanton, Yogi Vidvattama |
| University of Melbourne | Nicolas Herault, Guyonne Kalb |
| University of New South Wales | Bruce Bradbury |
| University of Queensland | Robert Sobrya |
| University of South Australia | Peter Rossini |
| University of Sydney | Farhat Yusuf |
| Victorian Council of Social Service (VCOSS) | Chris Wilson |
| Victoria Department of Treasury and Finance | Andrew O'Keefe, Edward Jin, Rebecca Valenzuela, Nicholas McMeniman |
| Victoria University | Andrew Wade |

Feedback

# Appendix B - Additional data requests

A number of users volunteered additional data items – either spontaneously or as context for other answers. These items are captured here for reference and transparency; this does not constitute formal consultation for future HES content.

| Topic | Discussion/details |
|---|---|
| Breakdown of unit, quantity and total | "Unit prices/price list, not just total expenditure" (Academic) "for example, Tasmania spends less on X because of lower income or because the item costs less?" (Academic) |
| Regional data | "We do weird and wonderful small regions" (Academic, Government agency, Peak body) "Ideal HES: detailed geography and link to other sources" (Academic) HILDA output by postcode is useful to tell stories; HES at SA1 or SA2 would be reasonable (Government agency) |
| Online purchases/location | "More and more the case that the seller isn't where the buyer is. Region of seller vs buyer" (Academic) "Online [expenditure] is a huge gap. What happens when COVID is gone?" (Private firm) "Place of purchase" (Academic) "online vs in person expenditure split" (Government agency) |
| Industry/Type of supplier | "Which industry supplied goods, whether they were imports or not" (Academic) "Type of retailer: supermarket, specialist retailer, etc" (Academic) |
| Discretionary expenditure | (government agency) |
| Demographics & Behavioural characteristics | "Vulnerable populations" (Government agencies) "first home buyers" (Government agency) "household type: alone, couple with kids, etc" (Government agency) "Those on transfer payments (pensions)" (Government agency) |
| Electricity use | "Lack of data in this space after deregulation"(Academic) "…broken down by age, household type (i.e. inequality) and state" (Academic) "Smart meter electricity use" (Academic, Peak body) Disaggregated Electricity and fuel (Rather than currently combined) (Academic) Installation of solar panels (Government agency) |
| Housing | "Renting details" and income (Academic) "Income from commercial vs residential leases separated out" (Academic) |
| | Consumption of Owner-occupied dwellings (Government agency) More accurate imputed rent, self-reported rather than commercial rates (Government agency) Housing Tenure (Government agency) |
| Financial stress | "Financial stress alongside discretionary expenditure" (Government agency) "Learn from the British survey, with different questions including heart rate, happiness" (Government agency) |
| Subjective data | "Other subjective details e.g. how hard it is to heat your house. Similar to the financial stress questions" (Academic) |
| Individual level data | "Ask reference and spouse to both answer the HES questions as you get different answers [for some questions]" (Academic) improvement for tobacco, alcohol, also gender inequality work per SS. |
| Telecommunications | Purchases (laptops, mobile phones, modems); subscriptions (internet/mobile plans, paid TV, plan upgrades); internet connectivity (Academic) Digital products and Subscriptions (e.g. iTunes, Spotify, Netflix, eBooks, virtual concerts, online learning etc) (Academic) |
| Disability insurance and products | (Academic) |

Feedback